REMARKS

In response to the Office Action dated December 5, 2008, Applicants respectfully request reconsideration based on the above claim amendments and the following remarks. Applicants respectfully submit that the claims as presented are in condition for allowance.

Claims 1, 2 and 4-12 are pending in the present Application. Claims 1, 2, 5-9 and 11 are amended, leaving Claims 1, 2 and 4-12 for consideration upon entry of the present amendment and following remarks. Support for the claim amendments can at least be found in the specification, the figures, and the claims as originally filed.

No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Claim Rejections – 35 U.S.C. §112

Claims 1, 2 and 4-12 are rejected under **35 U.S.C. §112, first paragraph**, as allegedly failing to comply with the written description requirement, such that the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, has possession of the invention. In particular:

- Claim 1 recites "a portion of the gate insulating layer is disposed between the plurality of gate portions and the gate connection," and it is stated that the disclosure lacks adequate description. Particularly, it is cited that only the portion of the gate electrode that directly covers and/or overlaps with the channel region can function and/or be regarded as a "gate portion" in the art. And, according to the original disclosure, the real gate portion in the instant invention is a portion of the gate electrode (123) that is also included in the recited gate wire in the instant invention (see lines 19-29 on page 5). Such real gate portion (123) directly overlaps with the channel portion.

The rejection details further state that it is not clear how and/or in what sense the recited portion of the gate insulating layer could be disposed between the gate portions(s) of the instant invention and the gate connection, as the real gate portion(s) (123) does/do not overlap in any

meaningful way with the recited gate connection, and in fact, according to the original disclosure (especially see Figures 1A and 1B), it is *the gate line portions (121)*, instead of the gate portions (123), that has a portion of the gate insulating layer (140) between it and the gate connection (120).

In response, Applicants hereinabove amend Claim 1 to change "a portion of the gate insulating layer is disposed between the plurality of *gate portions* and the gate connection," to "a portion of the gate insulating layer is disposed between the plurality of *gate line portions* and the gate connection." Support for amended Claim 1 is at least found in originally filed Figure 1B, where a portion of the gate insulating layer (140) is disposed between the plurality of gate line portions (121a/121b) and the gate connection (120).

- Claim 7 recites "the gate wire includes first and second gate wire portions and a gate connection" (line 16) and "a gate insulating layer formed on the gate wire" (line 4), which is stated as implying that the recited gate insulating layer is formed on the entire gate wiring including the recited gate connection. However, the rejection details assert that such implied subject matter contradicts what is disclosed in the drawings and/or the specification (particularly see Figures 1A and 1B; also see lines 19-29 on page 5 of the specification), in which the recited gate wire naturally includes the recited gate connection (120), and the recited gate insulating layer (140) is at least partially formed **under**, instead of being on, the recited gate connection (120) that is a part of the recited gate wire in the instant invention.

In response, Applicants hereinabove amend Claim 7 to recite "a gate insulating layer formed on *a portion of* the gate wire." For example, amended Claim 7 is supported in at least Figure 1B, where the gate insulating layer (140) is formed on *a portion* (121,121a,121b,123,125) of the gate wire (120,121,121a,121b,123,125).

Furthermore, it is stated that the subject matter of "*a gate connection* formed on the same layer as the data wire" recited in the claim also lacks full support in the disclosure, as it implies that the recited gate connection is formed on the same layer as the entire data wire. According to the drawings and the specification, (particularly see Figures 1A-1C; also see lines 13-22 on page 7 in the specification), the data wire in the present invention naturally includes at least a data

connection (170); and at least such a data connection (170), as a part of the data wire, is not formed on the same layer as the recited gate connection (120).

In response, Applicants hereinabove amend Claim 7 to change "a *gate connection* formed on the same layer as *the data wire*," to "a *portion of the gate wire* is formed on the same layer as *a portion of the data wire*." For example, amended Claim 7 is supported in at least Figure 1B and in the specification at page 6, lines 1-3 and page 9 line 29 to page 10, line 2, where *a portion* (120) of the gate wire (120,121,121a,121b,123,125) is formed on the same layer as a portion (170,179) of the data wire (171,171a,171b,173,175,179).

- Claim 8 recites "a data connection formed on the same layer as the gate wire," which is stated as implying that the recited data connection is formed on the layer as the entire gate wire. However, the rejection details assert that such implied subject matter contradicts what is disclosed in the drawings and/or the specification (particularly see Figures 1A-1C; also see lines 19-29 on page 5 in the specification), in which the recited gate wire naturally includes the recited gate connection (120); and the data connection (170) is not formed on the same layer as the gate connection (120) of the recited gate wire in the instant invention.

In response, Applicants hereinabove amend Claim 8 to change "a data connection formed on the same layer as *the gate wire*," to "a data connection formed on the same layer as *a portion of* the gate wire." For example, amended Claim 8 is supported in at least Figure 1C and in the specification at page 7, lines 28-30 and page 9, lines 9-11, where a data connection (170) is formed on the same layer as *a portion* (121,121a,121b,123,125) of the gate wire (120,121,121a,121b,123,125).

Claims 1, 2 and 4-12 are further rejected under **35 U.S.C. §112, second paragraph**, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular:

- Claim 1 recites "a gate wire including a plurality of gate portions, and a thin film transistor connected to the gate wire and the data wire," which is stated as implying that the recited gate portion(s) is/are not a part of the recited thin film transistor, given that the recited

gate portions are defined as a part of the recited gate wire. However, the rejection details assert that the above fails to clarify what is the relationship between the recited thin film transistor and the recited gate portion(s), and/or whether the latter is/are a portion of the former, given that only the portion of the gate electrode that directly overlaps with the channel region of the thin film transistor can normally function and/or be regarded as a real gate portion in the art.

In response, Applicants hereinabove amend Claim 1 to recite "a gate wire including a plurality of gate *line* portions and a gate connection connecting the gate *line* portions" and "a thin film transistor *formed by a portion of* the gate wire and *a portion of* the data wire." For example, amended Claim 1 is supported in at least Figures 1A and 1B, where the gate wire (120,121,121a,121b,123,125) includes a plurality of gate *line* portions (121a,121b) and a gate connection (120) connecting the gate *line* portions, and a thin film transistor *formed by a portion* (e.g., 123) of the gate wire (120,121,121a,121b,123,125).

- Claim 7 recites "a portion of the gate insulating layer is disposed between the first and second gate wire portions and the gate connection," which is asserted as failing to clarify what are the two entities the recited portion of the gate insulating layer is definitely disposed therebetween; and/or whether it means: the recited portion of the gate insulating layer is between the two gate wire portions, or between the first and second gate wire portions on one side and the gate connection on the other side.

In response, Applicants hereinabove amend Claim 7 to recite "a gate wire formed on the insulating substrate, *and including first and second gate line portions and a gate connection connecting the first and second gate line portions*," and "a portion of the gate insulating layer is disposed *between the first gate line portion and the gate connection*, and *between the second gate wire portion and the gate connection*." For example, amended Claim 7 is supported in at least Figure 1B, where the a portion of the gate insulating layer (140) is disposed between the first gate line portion (121a) and the gate connection (120), and a portion of the gate insulating layer (140) is disposed between the second gate line portion (121b) and the gate connection (120).

Applicants respectfully submit that Claims 1, 2 and 4-12 comply with the requirements of 35 U.S.C. §112, first and second paragraphs, for all the reasons discussed above. Entry of the

respective claim amendments, reconsideration and withdrawal of the relevant claim rejections over §112 first and second paragraphs are respectfully requested.

Conclusion

In view of the foregoing, it is respectfully submitted that the instant application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is cordially requested to telephone the undersigned.

Applicants hereby petition for any necessary extension of time required under 37 C.F.R. 1.136(a) or 1.136(b) which may be required for entry and consideration of the present Reply.

In the event the Commissioner of Patents and Trademarks deems additional fees to be due in connection with this application, Applicants' attorney hereby authorizes that such fee be charged to Deposit Account No. 06-1130.

Respectfully submitted,

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